UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|---------------------|---------------------------------|----------------------|---------------------|------------------|--|
| 10/520,549 | 03/09/2006 | Thomas Himmler | CS8445/LeA 36,137 | 3252 | |
| 34469 BAYER CROP | 7590 05/12/200 SCIENCE LP | EXAMINER | | | |
| Patent Departm | ent | SAEED, KAMAL A | | | |
| | ANDER DRIVE RIANGLE PARK, NC | ART UNIT | PAPER NUMBER | | |
| | | 1626 | | | |
| | | | | | |
| | | MAIL DATE | DELIVERY MODE | | |
| | | | 05/12/2009 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) | | | | | |
|--|--|----------------|--|--|--|--|--|
| | 10/520,549 | HIMMLER ET AL. | | | | | |
| Office Action Summary | Examiner | Art Unit | | | | | |
| | Kamal A. Saeed | 1626 | | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address | | | | | | | |
| Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | | | |
| Status | | | | | | | |
| 1) Responsive to communication(s) filed on <u>05 Fe</u> | action is non-final. nce except for formal matters, pro | | | | | | |
| Disposition of Claims | | | | | | | |
| 4) ☐ Claim(s) 14-18,24 and 25 is/are pending in the 4a) Of the above claim(s) 25 is/are withdrawn find 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 14-18 and 24 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or are subject to restriction and/or are subject to by the Examine 10) ☐ The drawing(s) filed on is/are: a) ☐ acceptable 25 is/are pending in the 4a or 25 i | rom consideration. r election requirement. r. | Examiner. | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 3/23/06. | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other: | te | | | | | |

DETAILED ACTION

Claims 1-13, 19-23 and 26 have been canceled. Therefore, claims 14-18, 24 and 25 are currently pending in this application. Claim 25 is withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention. The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search considerations. In addition, a reference, which anticipates one group, would not render obvious the other.

Information Disclosure Statement

Applicant's Information Disclosure Statements, filed on March 23, 2006 have been considered. Please refer to Applicant's copies of the 1449 submitted herewith.

Response to Restriction

Applicants' election with traverse of Group I, claims 14-18 and 24, drawn to a

product of Formula

, and the specific compound,

in which X, Y and A are each methyl; and G is ethoxycarbonyl (i.e. the group –(CO)-M-R2 in which M is oxygen and R2 is ethyl) in response filed February 05, 2009 is

acknowledged.

Applicants argue that at least group I and IV should be examined together because of the inherent relationship between the claimed compounds. Applicants argument were fully considered but was not found persuasive because the of the following reasons: restriction for examination purposes as indicated is proper because all the inventions listed in the Restriction Requirement action are independent or distinct for the reasons given above and in the Restriction Requirement and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Therefore the Restriction Requirement is deemed proper and <u>is maintained.</u>

Subject matter not encompassed by elected Group I are withdrawn from further

Application/Control Number: 10/520,549 Page 4

Art Unit: 1626

consideration pursuant to 37 CFR 1.142 (b), as being drawn to nonelected inventions. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The scope of the invention of the elected subject matter is as follows:

Compounds of formula I,

, depicted in

claim 14, wherein:

X, Y and A are each represent an alkyl group; and G is ethoxycarbonyl.

As result of the election and the corresponding scope of the invention identified supra, the remaining subject matter of claims 14-18 and 24 are withdrawn from further consideration pursuant to 37 CFR 1.142 (b) as being drawn to non-elected inventions. The withdrawn compounds contain varying functional groups such as CN, H, halogen, etc, which are chemically recognized to differ in structure and function from the elected heterocyclic moiety. This recognized chemical diversity of the functional groups can be seen by the various classification of these functional groups in the U.S. classification system, i.e. class 544 subclass 63(+) (thiomorpholine), class 540 subclass 450(+)

Application/Control Number: 10/520,549

Art Unit: 1626

(homopiperzinyl), class 544 subclass 180(+) (triazines), 548 subclass 400(+) pyrrolidines etc. Therefore the subject matter which are withdrawn from consideration as being non-elected subject differ materially in structure and composition and have been restricted properly a reference which anticipated but the elected subject matter would not even render obvious the withdrawn subject matter and the fields of search are not co-extensive.

Page 5

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-18 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,114,374 to Lieb et al.

The elected claims are drawn to the compound of Formula

X and Y each independently represent alkyl, halogen and alkoxy; A is an alkyl group; and G is ethoxycarbonyl.

Application/Control Number: 10/520,549

Page 6

Art Unit: 1626

Lieb et al. discloses compounds and compositions of Formula

| Ex. No. | x | z | A | 3 | М | R ^z | mp. C. |
|------------|---------------------------------|---------------------------------------|--------------------------------------|--|---|---------------------------------|-----------------|
| [-1-s-2 | i-C ₂ H ₂ | Ħ | —⟨C#.\ | CHCH ₂ —(CH ₂) ₂ — | 0 | C ₂ H ₃ | 198 |
| I-1-e-3 | CH ₃ | CH. | | CHCH ₂ —(CH ₂) ₂ — | ŏ | C2H2 | 146 |
| I-1-c-4 | CH. | CH, | | $CHOCH_3 - (CH_2)_2 -$ | ŏ | C ₂ H ₄ | 128 |
| I-1-0-5 | CH. | CH, | CH. | CH, | Ō | C,H, | 139 |
| I-1-c-6 | CH. | CH, | - | CHOC,H,-(CH,),- | O | C.H. | 126 |
| I-2-¢-7 | Br | OCH. | | CHCH ₃ —(CH ₂) ₂ — | O | C₂H. | 175 |
| I-1-z-8 | Ci. | NO_2 | | $CHCH_3 - (CH_3)_2 -$ | 0 | $\mathbb{C}_2^{\mathbb{H}_2^-}$ | 2.36 |
| I-1-c-9 | $O-CH_2-$ | H | $-\langle \mathrm{CH}_2 \rangle_2 -$ | $CHCH_3 + \langle CH_2 \rangle_2 +$ | O | C_2H_{π} | 131 |
| | C_8H_5 | | | | | | |
| I-1-¢-10 | | CH_3 | | $CHOCH_2 - (CH_2)_2 - $ | 0 | í-C₄H₅— | 122 |
| I-1-c-11 | CH ₂ | $\mathbf{CH_{5}}$ | $-\langle CH_2 \rangle_2$ | $CHOCH_2 - (CH_2)_2 -$ | 0 | ೦ೄ ಗೄ −೦ ಗಿ₂ | 139 |
| I-1-c-12 | CH ₃ | \mathfrak{CH}_3 | $-\langle CH_2 \rangle_2$ | $CHOCH_3 - (CH_2)_2 - $ | O | ⊂್ದ∺್ತ— | 193 |
| I-1-c-13 | OCH_3 | $\mathbb{C}\mathbb{H}_3$ | | $CHOCH_3 - (CH_2)_2 - $ | 0 | C_2H_5 — | 208–211 |
| I-1-0-14 | Br | OCH_3 | | $CHOCH_3 - (CH_2)_2 - $ | O | C _z H _s — | 180–182 |
| I-1-0-15 | a | CH_3 | $-\langle \text{CH}_2 \rangle_2$ | $CHOCH_3 - (CH_2)_2 - $ | Q | C_2H_3 — | 153—155 |
| I-1-a-16 | $\mathbf{B}r$ | \mathbf{g}_{z} | —(CH₂)₂— | $CHOCH_3 - (CH_2)_2 -$ | 0 | C_2H_2 — | >23 0 |
| I-1-c-17 | CH ₂ | $\mathbb{C}\mathrm{H}_{\mathfrak{p}}$ | -(CH₂)₂- | $CHOC_2H_5 - (CH_2)_2$ | 0 | ŀ-C₄H _ē — | 137-139 |
| I-1-c-18 | CH ₃ | CH_{9} | (CH ₂) ₂ | $CHOC_2H_3 - (CH_2)_2 -$ | 0 | C_cH_s — CH_2 | 135-137 |

(see column 64).

Specifically, compound No. I-1-c-4, I-1-c-6, I-1-c-4, I-1-c-7, I-1-c-10, I-1-c-14 read on the elected compounds.

Conclusion

No claims are allowed.

Application/Control Number: 10/520,549 Page 7

Art Unit: 1626

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamal A Saeed whose telephone number is (571) 272-0705. The examiner can normally be reached on M-T 7:00 AM- 5:30 PM.

Communication via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise requires a signature, may be used by applicant and should be addressed to [joseph.mckane@uspto.gov]. All Internet e-mail communications will be made of record in the application file. PTO employees will not communicate with applicant via Internet e-mail where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is of record an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. See the Interim Internet Usage Policy published by the Patent and Trademark Office Official Gazette on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or public PAIR only. For more information about the pair system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

/Kamal A Saeed, Ph.D./

Primary Examiner, Art Unit 1626